PROCESS FOR RECOVERING HYDROGEN IN A GASEOUS HYDROCARBON EFFLUENT BY CHEMICAL REACTION

A process for recovery of hydrogen in an effluent that is rich in hydrocarbons and that also contains hydrogen and a light olefin fraction, whereby said process comprises:

- a stage a) in which said effluent is brought into contact with at least one reagent that can react with said olefins to form with them a complex or a molecule;
- a stage c) in which the effluent that is obtained from stage a) is brought into contact with a composition that comprises at least one unsaturated compound in the presence of a suitable catalyst under hydrogenation conditions of at least a portion of said unsaturated compound by at least a portion of the hydrogen that is present in said effluent;
- a stage d) in which a reaction for dehydrogenation of hydrocarbons that are present in the effluent that is obtained from stage c) is carried out.